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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,206

04/04/2005

Etienne Duguet

0512-1269

9621

466 7590 02/25/2009

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EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

02/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<i>Office Action Summary</i>	Application No.	Applicant(s)	
	10/530,206	DUGUET ET AL.	
	Examiner	Art Unit	
	H. (Holly) T. Le	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-31,33-44 and 46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-31,33-44 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102/103

2. Claims 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner (US 4,213,886) in combination with the WO 94/28074 publication ("WO'074").

Turner teaches an aluminum flake coated with a silane (Turner, col. 3, lines 9-15); therefore, the bond formed from the coating will be Al-O-Si-R. The coating is free of fatty acid or fatty acid salt as the coating does not involve a fatty acid or its salt. Further, Turner teaches a coating method that is displacing the long-chain organic acids of the conventional method with phosphate ions (Turner, col. 5, lines 28-33) in order to yield a coating that is a complete improvement over the conventional coated aluminum flakes (Turner, col. 5, lines 20-24). WO'074 teaches metal flakes that are devoid of fatty acids in order to provide odorless and bright metallic effects in dispersion containing the flakes. See WO'074, abstract and claim 3. Therefore, one of ordinary skill in the art would be motivated to utilize the fatty-acid-free aluminum flakes taught by WO'074 in the coated aluminum flakes of Turner so that the step of displacing long-chain organic acids is rendered unnecessary.

Claims 25-26: See Turner, col. 2, lines 45-55.

Claim 27: See Turner, col. 2, lines 58-62 where wide aspect ratio is envisioned.

Furthermore, Turner teaches the claimed coated aluminum particles as discussed in section 2 above. At col. 2, lines 58-62, Turner teaches that an increase in aspect ratio

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of the aluminum flakes would reduce the flake concentration for the same metallic effect. Therefore, one of ordinary skill in the art would be motivated to increase the aspect ratio of the aluminum flakes if cost-saving is the focus.

Claim 28: See Turner, col. 5, lines 2-8.

Claim 29: See Turner, col. 3, line 50 to col. 4, line 5.

Claim 30: At col. 4, lines 60+ of Turner, coating amount of silane over the aluminum surface is taught. Such method would necessarily yield a mean amount of hydrocarbon bonded to the aluminum flake as claimed.

Claim 31: See Turner, col. 2, lines 38-45 and 62-68.

Claims 33-44 and 46: Turner teaches a method of coating aluminum flakes with silane by the conventional dispersion of the aluminum flakes in the silane coating material (See Turner, col. 3, lines 9-15). However, Turner does not elaborate what the conventional dispersion entails. WO'074 discusses mechanical deforming processes such as ball milling as means of dispersion of aluminum flakes. Therefore, one of ordinary skill in the art would have found it obvious to apply dispersion by ball milling to disperse the aluminum in silane coating material.

3. Claims 33-44 and 46 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al (US 4,213,886) in combination with the WO 94/28074 publication ("WO'074") and further in view of either Karton et al (US 5,531,930) or Hashizume (US 5,944,886).

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Turner teaches a method of coating aluminum flakes with silane by the conventional dispersion of the aluminum flakes in the silane coating material (See Turner, col. 3, lines 9-15). However, Turner does not elaborate what the conventional dispersion entails. Hashizume discusses various mechanical deforming processes, including ball milling, as conventional dispersion of aluminum flakes (see Hashizume, col. 4, lines 56-60). Therefore, one of ordinary skill in the art would have found it obvious to apply any of these conventional dispersion approaches in dispersing the aluminum in silane coating material. Alternatively, Karton states that applying external pressure to aluminum flakes during coating process would (1) reduce the amount of coating material and (2) increase the bulk density of the final coated aluminum without any appreciable loss in mass extinction characteristics (See Karton, col. 3, lines 47-63 and col. 4, lines 42-60). Therefore, one of ordinary skill in the art would have found it obvious to apply a coating on aluminum flakes by mechanical deforming the flakes.

Response to Arguments

4. Applicant's arguments with respect to claims 24-31, 33-44 and 46 have been considered but are moot in view of the new grounds of rejection set forth above. The final rejection in the last office action is hereby withdrawn.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. (Holly) T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 12:30 a.m. to 9:00 p.m. (EST), Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. (Holly) T. Le/
Primary Examiner, Art Unit 1794

February 18, 2009